

CLAIMS:

1. A method of compensating errors in comb filters in a line-locked sample domain, the method comprising:

delaying (LD1, LD2) an input video signal (CVBS) by first and second integral numbers of lines to obtain first and second delayed signals;

5 measuring (PM) a phase difference between at least two of said input video signal (CVBS) and said first and second delayed signals; and

correcting (PC1, PC2) a phase of said input video signal (CVBS) and a phase of said second delayed signal with respect to said first delayed signal in dependence on said phase difference.

10

2. A method as claimed in claim 1, wherein said phase correcting step (PC1, PC2) comprises:

multiplying a phase correction input signal (A, C) by first phase measurement signals (L, K) to obtain a first product;

15 Hilbert transforming (HT1, HT2) said phase correction input signal (A, C) to obtain a Hilbert transformed signal (D, E);

multiplying the Hilbert transformed signal (D, E) by second phase measurement signals (M, J) to obtain a second product; and

summing said first and second products.

20

3. A method as claimed in claim 1, wherein said phase difference measuring step (PM) comprises:

Hilbert transforming (HT2) a phase correction input signal (C) to obtain a Hilbert transformed signal (E);

25 multiplying said first delayed signal (B) by said Hilbert transformed signal (E) to obtain a first product signal (G);

multiplying said first delayed signal (B) by said phase correction input signal (C) to obtain a second product signal (F);

low-pass filtering (LPF) said first and second product signals to obtain low-pass filtered signals (H, I); and

phase processing (PP) said low-pass filtered signals (H, I) to obtain phase measurement signals (J, K).

5

4. A comb filter in a line-locked sample domain, the comb filter comprising:
means for delaying (LD1, LD2) an input video signal (CVBS) by first and second integral numbers of lines to obtain first and second delayed signals;

means for measuring (PM) a phase difference between at least two of said

10 input video signal (CVBS) and said first and second delayed signals; and

means for correcting (PC1, PC2) a phase of said input video signal (CVBS) and a phase of said second delayed signal with respect to said first delayed signal in dependence on said phase difference.

15 5. A color television apparatus comprising:
means for tuning and demodulating a television signal to obtain a video signal (CVBS);
a comb filter as claimed in claim 4 to obtain luminance and chrominance signals;

20 means for processing said luminance and chrominance signals to obtain display signals (R, G, B); and
means for displaying said display signals.(R, G, B).